

**U.S.ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY
540 S. MORRIS AVE., MONTGOMERY, AL 36115
GAMMA ANALYSES**

REPORT OF SAMPLE DELIVERY GROUP #1600015

Project: Canadian Radium & Uranium, Mt. Kisco, NY
 Analysis method: Gamma-ray Spectrometry - Sealed Radium Cans
 Report ID: 1600015-GAMMA-RA
 Report type: Original
 Date reported: 06/08/2016
 Total pages in report: 30

SAMPLES

NAREL Sample #	Client Sample ID	Location	Matrix	Date Collected	Date Received
B6.04104Y	C2-SB1-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04105Z	C2-SB1-4860-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04106A	C2-SB1-6072-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04107B	C2-SB1-7284-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04108C	C2-SB1-8496-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04109D	C2-SB2-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04110W	C2-SB2-1224-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04111X	C2-SB2-2436-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04112Y	C2-SB2-3648-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04113Z	C2-SB2-7284-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04114A	C2-SB2-7284-02	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04115B	C2-SB2-8496-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04116C	C2-SB3-0012-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04117D	C2-SB3-1224-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04118E	C2-SB3-4860-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04119F	C2-SB3-6072-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016
B6.04120Y	C2-SB3-7284-01	NY:MT. KISCO	SOIL	04/06/2016	04/19/2016

EXCEPTIONS

- Packaging and shipping** – No problems were observed.
- Documentation** – No problems were observed.
- Sample preparation** – No problems were encountered.
- Analysis** – Samples were held for 21 days to allow for ingrowth. Client requested that NAREL report the following: Cs-137, Th-234, Tl-208, Ra-228, Ac-228, Bi-210, Ra-226, Pb-214, Bi-214, Bi-212, Pb-212, Pb-210, and K-40. Client was informed that NAREL does not provide Ac-228 or Bi-210 results by gamma analysis. Also, client requested specific methods to be used, but NAREL uses in-house methods. Client agreed NAREL methods were acceptable. Please see page 4 of this report with regards to exceptions for reporting of some of the nuclides in this list. For Pb-210 in soil samples, NAREL flags the results because of the larger uncertainty associated with gamma-ray attenuation in uncharacterized materials at low energies (46.5 keV).
- Holding times** – No holding times were specified.

ACCREDITATION



All analyses included in this data package are accredited by the Oregon Environmental Laboratory Accreditation Program (ORELAP) to the TNI standard.

CERTIFICATION

I certify that this data report complies with the terms and conditions of the Project Acceptance Form and/or the Quality Assurance Project Plan, except as noted above. Release of the data contained in this report has been authorized by the Director of the Center for Environmental Radioanalytical Laboratory Science and the NAREL Quality Assurance Manager, or their designees, as verified by the following signatures.

A handwritten signature in black ink.

Velinda Herbert
Quality Assurance Manager, NAREL

6/14/16

Date

A handwritten signature in black ink.

Cynthia White
Director, Center for Environmental Radioanalytical
Laboratory Science

6-16-16

Date

GENERAL INFORMATION

SAMPLE TYPES

BLD	Blind sample
FBK	Field blank
SAM	Normal sample

ANALYSIS QC TYPES

ANA	Normal analysis
DUP	Laboratory duplicate
LCS	Laboratory control sample, or blank spike
MS	Matrix spike
MSD	Matrix spike duplicate (not currently analyzed)
RBK	Method blank
STD	External standard (used for ^{228}Ra yield determination)

QUALITY INDICATORS

RPD	Relative Percent Difference
%R	Percent Recovery
Z	Number of standard deviations by which a QC measurement differs from the expected value

RADIOCHEMICAL DATA

Radiochemical analyses usually require the subtraction of an instrument background measurement result from a gross sample measurement result. Both values are positive, but when the sample activity is low, random variations in the two measurements can cause the gross value to be less than the background, resulting in a measured activity less than zero. Although negative activities have no physical significance, they do have statistical importance, as for example in the evaluation of trends or the comparison of two groups of samples.

To the extent practical, it is the policy of NAREL to report results as generated, whether positive, negative, or zero, together with the "2-sigma" measurement uncertainty and a sample-specific estimate of the minimum detectable concentration (MDC). The measurement result, uncertainty, and MDC are always expressed in the same unit of measurement.

EVALUATION OF QC ANALYSES

A method blank result is considered unacceptable if it is more than 3 standard deviations below zero or more than 3 standard deviations above a predetermined upper control limit. For some analyses NAREL has set the upper control limit at zero. For others the control limit is a small positive number.

NAREL evaluates the results of duplicate and spike analyses using "Z scores." A Z score is the number of standard deviations by which the QC result differs from its ideal value. Generally the score is considered acceptable if its absolute value is not greater than 3.

The Z score for a spiked sample is computed by dividing the difference between the measured value and the target value by the combined standard uncertainty of the difference. The Z score for a duplicate analysis is computed by dividing the difference between the two measured values by the combined standard uncertainty of the difference.

NAREL reports the "relative percent difference," or RPD, between duplicate results and the "percent recovery," or %R, for spiked analyses, but does not use these values for evaluation of most analyses. An exception is the use of %R in the evaluation of gross alpha matrix spike results. A gross alpha matrix spike result is considered acceptable if either $|Z| \leq 3$ or $60 \leq \%R \leq 110$.

GENERAL INFORMATION (CONTINUED)

GAMMA ANALYSIS

The reporting format lists the gamma emitters in alphabetical order. The activity, 2-sigma uncertainty, and a sample-specific estimate of the MDC for radionuclides measured by gamma spectroscopy are reported only if the nuclide is detected above background with the exception of client requested nuclides of interest. The activity for each of the requested nuclides is reported whether negative, positive, or zero along with the associated 2-sigma uncertainty and the sample-specific estimate of the MDC.

Due to potential spectral interferences and other possible problems associated with the determination of the activity of certain radionuclides, the activities for ^{214}Bi , ^{214}Pb , ^{234}Th , $^{234\text{m}}\text{Pa}$, ^{226}Ra , ^{231}Th , and ^{235}U are subject to greater uncertainty than other commonly reported radionuclides. It should be noted that this potential uncertainty is not included in the two-sigma expanded uncertainty that is reported with each result. Although in this report we do provide the calculated activities for these radionuclides, we recommend that the results be used only as a qualitative means of indicating the presence of these radionuclides and not as a quantitative measure of their concentration. The results for these nuclides are not used in the evaluation of quality control samples. Furthermore, because of mutual interference between ^{226}Ra and ^{235}U , NAREL's gamma analysis software tends to overestimate the amounts of these nuclides whenever both are present in a sample. Lower estimates for ^{226}Ra activities can be obtained from the reported activities of its decay products, ^{214}Pb and ^{214}Bi , which are likely to be somewhat less than the ^{226}Ra activity because of the potential escape of radon gas.

NAREL's gamma-ray spectrometry software corrects activities and MDCs for decay between collection and analysis, but only up to a limit of twelve half-lives. If the decay time for a sample exceeds twelve half-lives of a radionuclide, that radionuclide is not reported. This software feature may affect results for short-lived radionuclides, such as ^{131}I and ^{140}Ba , when there is a long delay between collection and analysis.

USEPA
Data Shipped: 4/18/2016
Carrier Name: FedEx
Address: 8022 3372 1338

CHAIN OF CUSTODY RECORD
Canadian Uranium & Uranium Company
Contact Name: Bernard Ahous
Contact Phone: (908) 565-2980

No: 2-041816-105138-0008
Lab: NAREL
Lab Contact: Tonya Hudson
Lab Phone: (343) 270-3433

From: *Colden #4*

4.20.16

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cont	Container
5	C002-SB001-0012-01 ✓	4/6/2016	13:56 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-0012-01 ✓	4/6/2016	13:56 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-0012-01 ✓	4/6/2016	13:56 ✓	Gamma Spec (Modified) ✓	Soil ✓	4 C	N	1	16 oz Glass Jar ✓
5	C002-SB001-4860-01 ✓	4/6/2016	13:57 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	8 oz Glass Jar ✓
5	C002-SB001-4860-01 ✓	4/6/2016	13:57 ✓	Isotopic Uranium ✓	Soil ✓	4 C	N	1	8 oz Glass Jar ✓
5	C002-SB001-6072-01 ✓	4/6/2016	13:57 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	16 oz glass jar ✓
5	C002-SB001-6072-01 ✓	4/6/2016	13:57 ✓	Isotopic Uranium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-6072-01 ✓	4/6/2016	13:57 ✓	Gamma Spec (Modified) ✓	Soil ✓	4 C	N	1	16 oz glass jar ✓
5	C002-SB001-7284-01 ✓	4/6/2016	13:57 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-7284-01 ✓	4/6/2016	13:57 ✓	Isotopic Uranium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-7284-01 ✗	4/6/2016	13:57 ✓	Gamma Spec (Modified) ✗	Soil ✓	4 C	N	1	16 oz glass jar ✗
5	C002-SB001-8496-01 ✓	4/6/2016	13:57 ✓	Isotopic Thorium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-8496-01 ✓	4/6/2016	13:57 ✓	Isotopic Uranium ✓	Soil ✓	4 C	N	1	8 oz glass jar ✓
5	C002-SB001-8496-01 ✓	4/6/2016	13:57 ✓	Gamma Spec (Modified) ✓	Soil ✓	4 C	N	1	16 oz glass jar ✓
5	C002-SB002-0012-01 ✓	4/6/2016	14:31	Isotopic Thorium	Soil	4 C	N	1	8 oz glass jar
5	C002-SB002-0012-01 ✓	4/6/2016	14:31	Isotopic Uranium	Soil	4 C	N	1	8 oz glass jar
5	C002-SB002-0012-01 ✓	4/6/2016	14:31	Gamma Spec (Modified)	Soil	4 C	N	1	16 oz glass jar
4	C002-SB002-1224-01 ✓	4/6/2016	14:31 ✓	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓

SAMPLES TRANSFERRED FROM:									
CHAN OF CUSTODY #:									
Special Instructions: Sample Analysis P04-0091198: Gamma Spectroscopy analysis for soil samples to include: Ra-226 (In-growth), Ra-228, K-40, Th-232, Bi-214, Pb-212, Pb-214, Ra-226, Th-234, U-235, Pb-210, Bi-210. Email results to s.surnby@westonsolutions.com and ben.nwoou@westonsolutions.com									

Item/Reason	Identified by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time	Sample Condition Upon Receipt
	<i>Bernard Ahous PST</i>		<i>Audrey NAREL</i>		<i>as received Good</i>

USEPA
Date Shipped: 4/18/2016
Carrier Name: FedEx
Airbill No: B0122 3572 1333

CHAIN OF CUSTODY RECORD
Canaidian Plutonium & Uranium Corp.
Contact Name: Bernard Nwosu
Contact Phone: (908) 565-2980

No: 2-041816-105138-0008
Lab: NAREL
Lab Contact: Tonya Hudson
Lab Phone: (343) 270-3433

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cont	Container
C002-SB002-1224-01 ✓		4/6/2016	14:31	Isotopic Uranium ✓ Gamma Spec (Modified) ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-1224-01 ✓		4/6/2016	14:31	Isotopic Thorium ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB002-2436-01 ✓		4/6/2016	14:32	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-2436-01 ✓		4/6/2016	14:32	Gamma Spec (Modified) ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-2436-01 ✓	V	4/6/2016	14:32	Isotopic Thorium ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB002-3648-01 ✓	V	4/6/2016	14:32	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-3648-01 ✓	V	4/6/2016	14:32	Gamma Spec (Modified) ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-7284-01 ✓		4/6/2016	14:33	Isotopic Thorium ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB002-7284-01 ✓		4/6/2016	14:33	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-7284-01 ✓		4/6/2016	14:33	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB002-7284-02 ✓		4/6/2016	14:33	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-7284-02 ✓		4/6/2016	14:33	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB002-7284-02 ✓		4/6/2016	14:33	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB002-8496-01 ✓		4/6/2016	14:33 ✓	Isotopic Thorium ✓	Soil	4 C	Y	1	8 oz glass jar ✓
C002-SB002-8496-01 ✓		4/6/2016	14:33 ✓	Isotopic Uranium ✓	Soil	4 C	Y	1	8 oz glass jar ✓
C002-SB002-8496-01 ✓		4/6/2016	14:33 ✓	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB003-0012-01		4/6/2016	13:17	Isotopic Thorium	Soil	4 C	N	1	8 oz glass jar
C002-SB003-0012-01		4/6/2016	13:17	Isotopic Uranium	Soil	4 C	N	1	8 oz glass jar

SAMPLES TRANSFERRED FROM		
CHAIN OF CUSTODY #		
Item/Reason	Relinquished by (Signature and Organization)	Date/Time
5	Bernard Nwosu RSN	04/19/16 09:45 AM
		Date/Time Sample Condition Upon Receipt
		Original

Special Instructions: Sample Analysis P04-009-198: Gamma Spectroscopy analysis for soil samples to include: Ra-226 (in-growth), Ra-228, K-40, Th-232, Bi-212, Pb-212, Pb-214, Ra-226, Ra-228, Th-234, U-235, Pb-210, Bi-210. Email results to s.sumtay@westonsolutions.com and benn.nwosu@westonsolutions.com

USEPA
DateShipped: 4/18/2016
CarrierName: FedEx
AirbillNo: 602235721333

CHINESE CIVILIZATION

Canadian Radium & Uranium Corp/NY
Contact Name: Bernard Nwosu
Contact Phone: (208) 565-2980

No: 2-041816-105138-0008
Lab: NAREL
Lab Contact: Tonya Hudson
Lab Phone: (248) 270-5433

Lab #	Sample #	Sample Date	Sample Time	Analyses	Matrix	Preservative	Lab QC	Numb Cont	Container
C002-SB003-0012-01	C002-SB003-0012-01	4/8/2016	13:17	Gamma Spec (Modified) Isotopic Thorium Isotopic Uranium	Soil	4 C	N	1	16 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:17		Soil	4 C	N	1	8 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:17		Soil	4 C	N	1	8 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:17	Gamma Spec (Modified)	Soil	4 C	N	1	16 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:18	Isotopic Thorium	Soil	4 C	N	1	8 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:18	Isotopic Uranium	Soil	4 C	N	1	8 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:18	Gamma Spec (Modified)	Soil	4 C	N	1	16 oz glass jar
C002-SB003-1224-01	C002-SB003-1224-01	4/8/2016	13:18	Isotopic Thorium	Soil	4 C	N	1	8 oz glass jar
C002-SB003-8072-01	C002-SB003-8072-01	4/6/2016	13:18	Isotopic Uranium	Soil	4 C	N	1	8 oz glass jar
C002-SB003-8072-01	C002-SB003-8072-01	4/6/2016	13:18	Gamma Spec (Modified)	Soil	4 C	N	1	16 oz glass jar
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:18	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:18	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:18	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:19	Isotopic Thorium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:19	Isotopic Uranium ✓	Soil	4 C	N	1	8 oz glass jar ✓
C002-SB003-7284-01 ✓	C002-SB003-7284-01 ✓	4/6/2016	13:19	Gamma Spec (Modified) ✓	Soil	4 C	N	1	16 oz glass jar ✓
C003-SB001-0012-01	C003-SB001-0012-01	4/7/2016	12:19	Isotopic Thorium	Soil	4 C	N	1	8 oz glass jar
C003-SB001-0012-01	C003-SB001-0012-01	4/7/2016	12:19	Isotopic Uranium	Soil	4 C	N	1	16 oz glass jar
C003-SB001-0012-01	C003-SB001-0012-01	4/7/2016	12:19	Gamma Spec (Modified) ✓	Soil	4 C	N	1	8 oz glass jar

Special Instructions: Sample Analysis PO#-00391 198: Gamma Spectroscopy, Ra-228, K-40, Tl-208, Bi-212, Bi-214, Pb-212, Pb-214, Ra-226, Ra-growth.

SAMPLES TRANSFERRED FROM CHAIN OF CUSTODY #				
Item#Reason	Relinquished by (Signature and Organization)	Date/Time	Received by (Signature and Organization)	Date/Time Sample Condition Upon Receipt
Special Instructions: Sample Analysis PO# 0381198. Gamma Spectroscopy analysis for stool samples to include: Ra-226 (in-growth), Ra-228, K-40, Th-228, Bi-212, Pb-214, Ra-226, Ra-228, Pb-212, Pb-214, Pb-210, U-235, Th-234, U-238, Pb-210. Email results to s.sumbaly@westonsolutions.com and ben.twosu@westonsolutions.com	Bernard J. Dunn RSTB	10/10/14 @ 11:11 AM	Christopher Nader	10/10/14 @ 11:11 AM General Sample Good

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

ANALYSIS SUMMARY

Analysis method: NAREL GAM-01-RA
 Title: Gamma-ray Spectrometry - Sealed Radium Cans

NAREL Sample #	Client Sample ID	QC Type	Date Completed	Preparation Batch #	Assay Batch #
B6.04104Y	C2-SB1-0012-01		05/25/2016	0013404B	0020877K
B6.04105Z	C2-SB1-4860-01		05/25/2016	0013404B	0020877K
B6.04106A	C2-SB1-6072-01		05/25/2016	0013404B	0020877K
B6.04106A	C2-SB1-6072-01	DUP	05/26/2016	0013404B	0020877K
B6.04107B	C2-SB1-7284-01		05/26/2016	0013404B	0020877K
B6.04108C	C2-SB1-8496-01		05/26/2016	0013404B	0020877K
B6.04109D	C2-SB2-0012-01		05/26/2016	0013404B	0020877K
B6.04110W	C2-SB2-1224-01		05/26/2016	0013404B	0020877K
B6.04111X	C2-SB2-2436-01		05/26/2016	0013404B	0020877K
B6.04112Y	C2-SB2-3648-01		05/26/2016	0013404B	0020877K
B6.04113Z	C2-SB2-7284-01		05/27/2016	0013404B	0020877K
B6.04114A	C2-SB2-7284-02		05/27/2016	0013404B	0020877K
B6.04115B	C2-SB2-8496-01		05/27/2016	0013404B	0020877K
B6.04116C	C2-SB3-0012-01		05/27/2016	0013404B	0020877K
B6.04117D	C2-SB3-1224-01		05/27/2016	0013404B	0020877K
B6.04118E	C2-SB3-4860-01		05/27/2016	0013404B	0020877K
B6.04119F	C2-SB3-6072-01		05/27/2016	0013404B	0020877K
B6.04120Y	C2-SB3-7284-01		06/01/2016	0013404B	0020877K
LCS-00734848Y *		LCS	06/01/2016	0013404B	0020877K
RBK-00734849Z *		RBK	06/01/2016	0013404B	0020877K

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04104Y	Amount analyzed:	1.920e+02 GDRY
Client sample ID:	C2-SB1-0012-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:56 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	95.75 %	Analyst:	MO
Ash/dry weight:	88.99 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/24/2016 14:26	1000.0	GE04	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	4.07e-01	1.4e-01	1.5e-01	PCI/GDRY	04/06/2016 13:56 EDT
Bi214	J	3.00e-01	4.1e-02	2.2e-02	PCI/GDRY	04/06/2016 13:56 EDT
Cs137		-8.23e-04	7.7e-03	9.7e-03	PCI/GDRY	04/06/2016 13:56 EDT
K40		7.46e+00	8.5e-01	1.2e-01	PCI/GDRY	04/06/2016 13:56 EDT
Pb210	J	4.27e-01	1.5e-01	1.9e-01	PCI/GDRY	04/06/2016 13:56 EDT
Pb212	J	3.58e-01	4.2e-02	1.5e-02	PCI/GDRY	04/06/2016 13:56 EDT
Pb214	J	3.55e-01	4.4e-02	1.9e-02	PCI/GDRY	04/06/2016 13:56 EDT
Ra226	J	6.30e-01	1.7e-01	1.9e-01	PCI/GDRY	04/06/2016 13:56 EDT
Ra228		3.36e-01	5.2e-02	3.9e-02	PCI/GDRY	04/06/2016 13:56 EDT
Th234	J	2.75e-01	1.4e-01	1.9e-01	PCI/GDRY	04/06/2016 13:56 EDT
Tl208	J	1.01e-01	1.5e-02	1.0e-02	PCI/GDRY	04/06/2016 13:56 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04105Z	Amount analyzed:	3.260e+02 GDRY
Client sample ID:	C2-SB1-4860-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:57 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	94.41 %	Analyst:	MO
Ash/dry weight:	97.26 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/24/2016 14:27	1000.0	GE15	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2\sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	6.61e-01	1.3e-01	1.2e-01	PCI/GDRY	04/06/2016 13:57 EDT
Bi214	J	6.68e-01	7.7e-02	2.2e-02	PCI/GDRY	04/06/2016 13:57 EDT
Cs137		-5.02e-03	7.8e-03	9.0e-03	PCI/GDRY	04/06/2016 13:57 EDT
K40		1.13e+01	1.3e+00	9.5e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb210	J	7.58e-01	2.0e-01	2.2e-01	PCI/GDRY	04/06/2016 13:57 EDT
Pb212	J	5.54e-01	6.3e-02	1.8e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb214	J	7.47e-01	8.5e-02	2.2e-02	PCI/GDRY	04/06/2016 13:57 EDT
Ra226	J	1.08e+00	2.0e-01	1.9e-01	PCI/GDRY	04/06/2016 13:57 EDT
Ra228		5.48e-01	7.2e-02	3.6e-02	PCI/GDRY	04/06/2016 13:57 EDT
Th234	J	5.83e-01	1.5e-01	1.9e-01	PCI/GDRY	04/06/2016 13:57 EDT
Tl208	J	1.81e-01	2.4e-02	1.2e-02	PCI/GDRY	04/06/2016 13:57 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04106A	Amount analyzed:	6.450e+02 GDRY
Client sample ID:	C2-SB1-6072-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:57 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	91.38 %	Analyst:	MO
Ash/dry weight:	98.14 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/24/2016 14:29	1000.0	GE16	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	6.27e-01	1.0e-01	8.8e-02	PCI/GDRY	04/06/2016 13:57 EDT
Bi214	J	7.65e-01	8.6e-02	1.6e-02	PCI/GDRY	04/06/2016 13:57 EDT
Cs137		-3.37e-03	5.8e-03	9.6e-03	PCI/GDRY	04/06/2016 13:57 EDT
K40		1.20e+01	1.3e+00	6.0e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb210	J	8.47e-01	1.8e-01	2.0e-01	PCI/GDRY	04/06/2016 13:57 EDT
Pb212	J	5.24e-01	6.0e-02	1.2e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb214	J	8.75e-01	9.9e-02	1.7e-02	PCI/GDRY	04/06/2016 13:57 EDT
Ra226	J	1.16e+00	1.8e-01	1.6e-01	PCI/GDRY	04/06/2016 13:57 EDT
Ra228		5.26e-01	6.2e-02	2.5e-02	PCI/GDRY	04/06/2016 13:57 EDT
Th234	J	4.29e-01	1.4e-01	2.0e-01	PCI/GDRY	04/06/2016 13:57 EDT
Tl208	J	1.64e-01	2.0e-02	8.3e-03	PCI/GDRY	04/06/2016 13:57 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04106A	Amount analyzed:	6.450e+02 GDRY
Client sample ID:	C2-SB1-6072-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:57 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	91.38 %	Analyst:	MO
Ash/dry weight:	98.14 %	QC type:	DUP
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:25	1000.0	GE15	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	5.64e-01	1.1e-01	1.0e-01	PCI/GDRY	04/06/2016 13:57 EDT
Bi214	J	7.60e-01	8.6e-02	1.8e-02	PCI/GDRY	04/06/2016 13:57 EDT
Cs137		-5.38e-03	7.6e-03	8.7e-03	PCI/GDRY	04/06/2016 13:57 EDT
K40		1.19e+01	1.3e+00	7.5e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb210	J	7.96e-01	2.1e-01	2.4e-01	PCI/GDRY	04/06/2016 13:57 EDT
Pb212	J	5.21e-01	5.9e-02	1.7e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb214	J	8.81e-01	1.0e-01	2.2e-02	PCI/GDRY	04/06/2016 13:57 EDT
Ra226	J	1.21e+00	2.1e-01	1.8e-01	PCI/GDRY	04/06/2016 13:57 EDT
Ra228		5.31e-01	6.6e-02	3.0e-02	PCI/GDRY	04/06/2016 13:57 EDT
Th234	J	5.39e-01	1.6e-01	2.1e-01	PCI/GDRY	04/06/2016 13:57 EDT
Tl208	J	1.63e-01	2.1e-02	9.6e-03	PCI/GDRY	04/06/2016 13:57 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04107B	Amount analyzed:	4.920e+02 GDRY
Client sample ID:	C2-SB1-7284-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:57 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	80.06 %	Analyst:	MO
Ash/dry weight:	94.96 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:26	1000.0	GE04	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.30e-01	1.6e-01	1.2e-01	PCI/GDRY	04/06/2016 13:57 EDT
Bi214	J	5.31e-01	6.1e-02	1.6e-02	PCI/GDRY	04/06/2016 13:57 EDT
Cs137		-5.04e-03	7.3e-03	9.1e-03	PCI/GDRY	04/06/2016 13:57 EDT
K40		1.14e+01	1.3e+00	8.3e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb210	J	2.94e-01	1.1e-01	1.4e-01	PCI/GDRY	04/06/2016 13:57 EDT
Pb212	J	7.88e-01	8.8e-02	1.3e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb214	J	6.00e-01	7.3e-02	2.0e-02	PCI/GDRY	04/06/2016 13:57 EDT
Ra226	J	1.20e+00	2.1e-01	1.9e-01	PCI/GDRY	04/06/2016 13:57 EDT
Ra228		8.01e-01	9.4e-02	3.6e-02	PCI/GDRY	04/06/2016 13:57 EDT
Th234	J	5.77e-01	1.4e-01	1.8e-01	PCI/GDRY	04/06/2016 13:57 EDT
Tl208	J	2.57e-01	3.0e-02	1.0e-02	PCI/GDRY	04/06/2016 13:57 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04108C	Amount analyzed:	5.090e+02 GDRY
Client sample ID:	C2-SB1-8496-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:57 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	81.74 %	Analyst:	MO
Ash/dry weight:	96.75 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:27	1000.0	GE16	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.23e-01	1.3e-01	9.3e-02	PCI/GDRY	04/06/2016 13:57 EDT
Bi214	J	4.78e-01	5.5e-02	1.4e-02	PCI/GDRY	04/06/2016 13:57 EDT
Cs137		-8.01e-04	6.5e-03	7.8e-03	PCI/GDRY	04/06/2016 13:57 EDT
K40		1.20e+01	1.3e+00	6.5e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb210	J	2.77e-01	8.8e-02	1.1e-01	PCI/GDRY	04/06/2016 13:57 EDT
Pb212	J	8.06e-01	9.0e-02	1.2e-02	PCI/GDRY	04/06/2016 13:57 EDT
Pb214	J	5.65e-01	6.5e-02	1.8e-02	PCI/GDRY	04/06/2016 13:57 EDT
Ra226	J	1.19e+00	1.8e-01	1.6e-01	PCI/GDRY	04/06/2016 13:57 EDT
Ra228		8.07e-01	9.2e-02	2.6e-02	PCI/GDRY	04/06/2016 13:57 EDT
Th234	J	7.80e-01	1.3e-01	1.5e-01	PCI/GDRY	04/06/2016 13:57 EDT
Tl208	J	2.38e-01	2.8e-02	7.7e-03	PCI/GDRY	04/06/2016 13:57 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04109D	Amount analyzed:	2.520e+02 GDRY
Client sample ID:	C2-SB2-0012-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:31 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	95.55 %	Analyst:	MO
Ash/dry weight:	85.26 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:28	1000.0	GE12	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	4.22e-01	1.2e-01	1.2e-01	PCI/GDRY	04/06/2016 14:31 EDT
Bi214	J	3.58e-01	4.4e-02	2.0e-02	PCI/GDRY	04/06/2016 14:31 EDT
Cs137		9.43e-03	6.0e-03	8.2e-03	PCI/GDRY	04/06/2016 14:31 EDT
K40		9.98e+00	1.1e+00	1.0e-01	PCI/GDRY	04/06/2016 14:31 EDT
Pb210	J	4.77e-01	1.2e-01	1.5e-01	PCI/GDRY	04/06/2016 14:31 EDT
Pb212	J	4.35e-01	5.0e-02	1.5e-02	PCI/GDRY	04/06/2016 14:31 EDT
Pb214	J	4.16e-01	5.0e-02	2.1e-02	PCI/GDRY	04/06/2016 14:31 EDT
Ra226	J	7.32e-01	1.8e-01	2.0e-01	PCI/GDRY	04/06/2016 14:31 EDT
Ra228		4.63e-01	6.0e-02	4.0e-02	PCI/GDRY	04/06/2016 14:31 EDT
Th234	J	2.71e-01	1.3e-01	1.7e-01	PCI/GDRY	04/06/2016 14:31 EDT
Tl208	J	1.38e-01	1.9e-02	1.1e-02	PCI/GDRY	04/06/2016 14:31 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04110W	Amount analyzed:	3.990e+02 GDRY
Client sample ID:	C2-SB2-1224-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:31 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	83.51 %	Analyst:	MO
Ash/dry weight:	89.80 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:43	1000.0	GE17	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	1.32e+00	2.7e-01	2.3e-01	PCI/GDRY	04/06/2016 14:31 EDT
Bi214	J	1.29e+00	1.5e-01	2.8e-02	PCI/GDRY	04/06/2016 14:31 EDT
Cs137		4.64e-02	9.4e-03	1.2e-02	PCI/GDRY	04/06/2016 14:31 EDT
K40		1.55e+01	1.7e+00	1.4e-01	PCI/GDRY	04/06/2016 14:31 EDT
Pb210	J	9.70e-01	1.7e-01	1.8e-01	PCI/GDRY	04/06/2016 14:31 EDT
Pb212	J	1.31e+00	1.5e-01	2.4e-02	PCI/GDRY	04/06/2016 14:31 EDT
Pb214	J	1.47e+00	1.6e-01	3.0e-02	PCI/GDRY	04/06/2016 14:31 EDT
Ra226	J	2.23e+00	3.4e-01	2.9e-01	PCI/GDRY	04/06/2016 14:31 EDT
Ra228		1.32e+00	1.5e-01	7.2e-02	PCI/GDRY	04/06/2016 14:31 EDT
Th234	J	6.85e-01	1.8e-01	2.5e-01	PCI/GDRY	04/06/2016 14:31 EDT
Tl208	J	4.12e-01	4.9e-02	1.9e-02	PCI/GDRY	04/06/2016 14:31 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04111X	Amount analyzed:	5.780e+02 GDRY
Client sample ID:	C2-SB2-2436-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:32 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	89.06 %	Analyst:	MO
Ash/dry weight:	97.20 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:30	1000.0	GE18	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	7.90e-01	1.6e-01	1.5e-01	PCI/GDRY	04/06/2016 14:32 EDT
Bi214	J	1.64e+00	1.8e-01	2.1e-02	PCI/GDRY	04/06/2016 14:32 EDT
Cs137		3.65e-02	7.0e-03	8.5e-03	PCI/GDRY	04/06/2016 14:32 EDT
K40		1.32e+01	1.5e+00	9.5e-02	PCI/GDRY	04/06/2016 14:32 EDT
Pb210	J	2.11e+00	3.1e-01	2.7e-01	PCI/GDRY	04/06/2016 14:32 EDT
Pb212	J	7.28e-01	8.2e-02	1.8e-02	PCI/GDRY	04/06/2016 14:32 EDT
Pb214	J	1.89e+00	2.1e-01	2.5e-02	PCI/GDRY	04/06/2016 14:32 EDT
Ra226	J	2.57e+00	3.4e-01	2.3e-01	PCI/GDRY	04/06/2016 14:32 EDT
Ra228		7.27e-01	8.7e-02	5.3e-02	PCI/GDRY	04/06/2016 14:32 EDT
Th234	J	7.19e-01	1.8e-01	2.6e-01	PCI/GDRY	04/06/2016 14:32 EDT
Tl208	J	2.21e-01	2.7e-02	1.3e-02	PCI/GDRY	04/06/2016 14:32 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04112Y	Amount analyzed:	5.620e+02 GDRY
Client sample ID:	C2-SB2-3648-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:32 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	90.76 %	Analyst:	MO
Ash/dry weight:	91.79 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/25/2016 14:31	1000.0	GE23	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.68e-01	1.7e-01	1.5e-01	PCI/GDRY	04/06/2016 14:32 EDT
Bi214	J	4.50e+00	4.9e-01	2.5e-02	PCI/GDRY	04/06/2016 14:32 EDT
Cs137		7.11e-02	1.1e-02	1.0e-02	PCI/GDRY	04/06/2016 14:32 EDT
K40		1.22e+01	1.4e+00	1.3e-01	PCI/GDRY	04/06/2016 14:32 EDT
Pb210	J	8.99e+00	1.1e+00	4.4e-01	PCI/GDRY	04/06/2016 14:32 EDT
Pb212	J	9.01e-01	1.0e-01	2.0e-02	PCI/GDRY	04/06/2016 14:32 EDT
Pb214	J	5.07e+00	5.6e-01	2.3e-02	PCI/GDRY	04/06/2016 14:32 EDT
Ra226	J	5.84e+00	7.0e-01	3.2e-01	PCI/GDRY	04/06/2016 14:32 EDT
Ra228		9.12e-01	1.1e-01	4.7e-02	PCI/GDRY	04/06/2016 14:32 EDT
Th234	J	6.06e-01	2.7e-01	3.9e-01	PCI/GDRY	04/06/2016 14:32 EDT
Tl208	J	2.79e-01	3.2e-02	1.0e-02	PCI/GDRY	04/06/2016 14:32 EDT
U235	J	8.66e-02	4.9e-02	7.7e-02	PCI/GDRY	04/06/2016 14:32 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04113Z	Amount analyzed:	5.810e+02 GDRY
Client sample ID:	C2-SB2-7284-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:33 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	84.35 %	Analyst:	MO
Ash/dry weight:	95.90 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:32	1000.0	GE18	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	1.09e+00	1.9e-01	1.6e-01	PCI/GDRY	04/06/2016 14:33 EDT
Bi214	J	7.72e-01	8.8e-02	2.1e-02	PCI/GDRY	04/06/2016 14:33 EDT
Cs137		4.85e-03	7.8e-03	1.3e-02	PCI/GDRY	04/06/2016 14:33 EDT
K40		1.41e+01	1.6e+00	9.7e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb210	J	8.36e-01	1.8e-01	2.3e-01	PCI/GDRY	04/06/2016 14:33 EDT
Pb212	J	1.02e+00	1.1e-01	1.6e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb214	J	8.82e-01	1.0e-01	2.4e-02	PCI/GDRY	04/06/2016 14:33 EDT
Ra226	J	1.67e+00	2.5e-01	2.1e-01	PCI/GDRY	04/06/2016 14:33 EDT
Ra228		9.92e-01	1.1e-01	5.0e-02	PCI/GDRY	04/06/2016 14:33 EDT
Th234	J	8.07e-01	1.8e-01	2.4e-01	PCI/GDRY	04/06/2016 14:33 EDT
Tl208	J	3.18e-01	3.7e-02	1.4e-02	PCI/GDRY	04/06/2016 14:33 EDT
U235	J	5.98e-02	3.8e-02	5.8e-02	PCI/GDRY	04/06/2016 14:33 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04114A	Amount analyzed:	6.010e+02 GDRY
Client sample ID:	C2-SB2-7284-02	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:33 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	83.99 %	Analyst:	MO
Ash/dry weight:	95.93 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:33	1000.0	GE04	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.68e-01	1.5e-01	1.2e-01	PCI/GDRY	04/06/2016 14:33 EDT
Bi214	J	7.13e-01	8.1e-02	2.0e-02	PCI/GDRY	04/06/2016 14:33 EDT
Cs137		4.42e-03	6.4e-03	8.0e-03	PCI/GDRY	04/06/2016 14:33 EDT
K40		1.34e+01	1.5e+00	8.7e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb210	J	7.67e-01	2.2e-01	2.8e-01	PCI/GDRY	04/06/2016 14:33 EDT
Pb212	J	9.43e-01	1.1e-01	1.6e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb214	J	8.31e-01	9.4e-02	2.1e-02	PCI/GDRY	04/06/2016 14:33 EDT
Ra226	J	1.50e+00	2.3e-01	2.0e-01	PCI/GDRY	04/06/2016 14:33 EDT
Ra228		9.82e-01	1.1e-01	3.2e-02	PCI/GDRY	04/06/2016 14:33 EDT
Th234	J	8.69e-01	2.1e-01	2.7e-01	PCI/GDRY	04/06/2016 14:33 EDT
Tl208	J	3.01e-01	3.5e-02	9.4e-03	PCI/GDRY	04/06/2016 14:33 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04115B	Amount analyzed:	6.110e+02 GDRY
Client sample ID:	C2-SB2-8496-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 14:33 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	80.48 %	Analyst:	MO
Ash/dry weight:	96.73 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:35	1000.0	GE12	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.31e-01	1.5e-01	1.1e-01	PCI/GDRY	04/06/2016 14:33 EDT
Bi214	J	5.10e-01	5.9e-02	1.7e-02	PCI/GDRY	04/06/2016 14:33 EDT
Cs137		4.03e-03	6.1e-03	7.7e-03	PCI/GDRY	04/06/2016 14:33 EDT
K40		1.19e+01	1.3e+00	7.7e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb210	J	5.12e-01	1.7e-01	2.3e-01	PCI/GDRY	04/06/2016 14:33 EDT
Pb212	J	8.02e-01	9.0e-02	1.3e-02	PCI/GDRY	04/06/2016 14:33 EDT
Pb214	J	5.73e-01	6.6e-02	2.0e-02	PCI/GDRY	04/06/2016 14:33 EDT
Ra226	J	9.37e-01	1.8e-01	1.8e-01	PCI/GDRY	04/06/2016 14:33 EDT
Ra228		7.91e-01	9.1e-02	3.3e-02	PCI/GDRY	04/06/2016 14:33 EDT
Th234	J	5.17e-01	1.7e-01	2.3e-01	PCI/GDRY	04/06/2016 14:33 EDT
Tl208	J	2.56e-01	3.0e-02	9.4e-03	PCI/GDRY	04/06/2016 14:33 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04116C	Amount analyzed:	2.600e+02 GDRY
Client sample ID:	C2-SB3-0012-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:17 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	78.00 %	Analyst:	MO
Ash/dry weight:	92.46 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:38	1000.0	GE15	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	7.83e-01	1.7e-01	1.5e-01	PCI/GDRY	04/06/2016 13:17 EDT
Bi214	J	9.69e-01	1.1e-01	2.7e-02	PCI/GDRY	04/06/2016 13:17 EDT
Cs137		1.60e-01	2.2e-02	1.3e-02	PCI/GDRY	04/06/2016 13:17 EDT
K40		1.10e+01	1.2e+00	1.1e-01	PCI/GDRY	04/06/2016 13:17 EDT
Pb210	J	1.34e+00	1.9e-01	1.6e-01	PCI/GDRY	04/06/2016 13:17 EDT
Pb212	J	7.64e-01	8.6e-02	2.2e-02	PCI/GDRY	04/06/2016 13:17 EDT
Pb214	J	1.11e+00	1.3e-01	2.7e-02	PCI/GDRY	04/06/2016 13:17 EDT
Ra226	J	1.71e+00	2.9e-01	2.5e-01	PCI/GDRY	04/06/2016 13:17 EDT
Ra228		6.98e-01	9.0e-02	4.7e-02	PCI/GDRY	04/06/2016 13:17 EDT
Th234	J	6.83e-01	1.7e-01	2.0e-01	PCI/GDRY	04/06/2016 13:17 EDT
Tl208	J	2.23e-01	2.9e-02	1.4e-02	PCI/GDRY	04/06/2016 13:17 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04117D	Amount analyzed:	5.880e+02 GDRY
Client sample ID:	C2-SB3-1224-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:17 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	86.91 %	Analyst:	MO
Ash/dry weight:	96.78 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:40	1000.0	GE16	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.56e-01	1.4e-01	1.0e-01	PCI/GDRY	04/06/2016 13:17 EDT
Bi214	J	1.30e+00	1.4e-01	1.9e-02	PCI/GDRY	04/06/2016 13:17 EDT
Cs137		8.75e-02	1.1e-02	7.2e-03	PCI/GDRY	04/06/2016 13:17 EDT
K40		1.29e+01	1.4e+00	6.4e-02	PCI/GDRY	04/06/2016 13:17 EDT
Pb210	J	1.27e+00	2.4e-01	2.5e-01	PCI/GDRY	04/06/2016 13:17 EDT
Pb212	J	8.49e-01	9.6e-02	1.5e-02	PCI/GDRY	04/06/2016 13:17 EDT
Pb214	J	1.46e+00	1.6e-01	2.2e-02	PCI/GDRY	04/06/2016 13:17 EDT
Ra226	J	2.02e+00	2.8e-01	2.1e-01	PCI/GDRY	04/06/2016 13:17 EDT
Ra228		8.17e-01	9.4e-02	3.1e-02	PCI/GDRY	04/06/2016 13:17 EDT
Th234	J	6.81e-01	1.8e-01	2.5e-01	PCI/GDRY	04/06/2016 13:17 EDT
Tl208	J	2.64e-01	3.1e-02	9.7e-03	PCI/GDRY	04/06/2016 13:17 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04118E	Amount analyzed:	5.430e+02 GDRY
Client sample ID:	C2-SB3-4860-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:18 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	79.16 %	Analyst:	MO
Ash/dry weight:	86.50 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:42	1000.0	GE17	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	8.52e-01	1.8e-01	1.7e-01	PCI/GDRY	04/06/2016 13:18 EDT
Bi214	J	1.78e+00	2.0e-01	2.3e-02	PCI/GDRY	04/06/2016 13:18 EDT
Cs137		-5.90e-03	9.5e-03	1.6e-02	PCI/GDRY	04/06/2016 13:18 EDT
K40		1.08e+01	1.2e+00	1.1e-01	PCI/GDRY	04/06/2016 13:18 EDT
Pb210	J	1.84e+00	2.3e-01	1.4e-01	PCI/GDRY	04/06/2016 13:18 EDT
Pb212	J	7.80e-01	8.8e-02	2.0e-02	PCI/GDRY	04/06/2016 13:18 EDT
Pb214	J	2.03e+00	2.3e-01	2.8e-02	PCI/GDRY	04/06/2016 13:18 EDT
Ra226	J	2.69e+00	3.6e-01	2.5e-01	PCI/GDRY	04/06/2016 13:18 EDT
Ra228		7.94e-01	9.5e-02	5.4e-02	PCI/GDRY	04/06/2016 13:18 EDT
Th234	J	5.32e-01	1.3e-01	1.9e-01	PCI/GDRY	04/06/2016 13:18 EDT
Tl208	J	2.45e-01	3.0e-02	1.4e-02	PCI/GDRY	04/06/2016 13:18 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04119F	Amount analyzed:	4.010e+02 GDRY
Client sample ID:	C2-SB3-6072-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:18 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	60.06 %	Analyst:	MO
Ash/dry weight:	87.01 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/26/2016 15:43	1000.0	GE23	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	1.12e+00	1.7e-01	1.3e-01	PCI/GDRY	04/06/2016 13:18 EDT
Bi214	J	5.91e-01	6.8e-02	1.9e-02	PCI/GDRY	04/06/2016 13:18 EDT
Cs137		-3.71e-03	7.8e-03	9.8e-03	PCI/GDRY	04/06/2016 13:18 EDT
K40		9.50e+00	1.1e+00	1.0e-01	PCI/GDRY	04/06/2016 13:18 EDT
Pb210	J	5.51e-01	1.3e-01	1.6e-01	PCI/GDRY	04/06/2016 13:18 EDT
Pb212	J	1.04e+00	1.2e-01	1.5e-02	PCI/GDRY	04/06/2016 13:18 EDT
Pb214	J	7.37e-01	8.4e-02	2.1e-02	PCI/GDRY	04/06/2016 13:18 EDT
Ra226	J	1.47e+00	2.4e-01	2.2e-01	PCI/GDRY	04/06/2016 13:18 EDT
Ra228		9.87e-01	1.1e-01	2.9e-02	PCI/GDRY	04/06/2016 13:18 EDT
Th234	J	8.17e-01	1.7e-01	2.1e-01	PCI/GDRY	04/06/2016 13:18 EDT
Tl208	J	3.11e-01	3.6e-02	9.7e-03	PCI/GDRY	04/06/2016 13:18 EDT
U235	J	4.45e-02	4.3e-02	6.1e-02	PCI/GDRY	04/06/2016 13:18 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	B6.04120Y	Amount analyzed:	5.550e+02 GDRY
Client sample ID:	C2-SB3-7284-01	Preparation batch #:	0013404B
Matrix:	SOIL	Assay batch #:	0020877K
Collected:	2016-04-06 13:18 EDT	Prep procedure:	N/A
Sample type:	SAM	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	83.07 %	Analyst:	MO
Ash/dry weight:	98.05 %	QC type:	ANA
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/31/2016 14:06	1000.0	GE04	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	9.44e-01	1.5e-01	1.2e-01	PCI/GDRY	04/06/2016 13:18 EDT
Bi214	J	5.61e-01	6.5e-02	1.6e-02	PCI/GDRY	04/06/2016 13:18 EDT
Cs137		-4.70e-03	6.8e-03	8.5e-03	PCI/GDRY	04/06/2016 13:18 EDT
K40		1.43e+01	1.6e+00	8.6e-02	PCI/GDRY	04/06/2016 13:18 EDT
Pb210	J	3.19e-01	9.9e-02	1.3e-01	PCI/GDRY	04/06/2016 13:18 EDT
Pb212	J	8.46e-01	9.4e-02	1.3e-02	PCI/GDRY	04/06/2016 13:18 EDT
Pb214	J	5.98e-01	7.2e-02	1.8e-02	PCI/GDRY	04/06/2016 13:18 EDT
Ra226	J	1.37e+00	2.1e-01	1.9e-01	PCI/GDRY	04/06/2016 13:18 EDT
Ra228		9.31e-01	1.1e-01	3.3e-02	PCI/GDRY	04/06/2016 13:18 EDT
Th234	J	5.49e-01	1.4e-01	1.8e-01	PCI/GDRY	04/06/2016 13:18 EDT
Tl208	J	2.73e-01	3.2e-02	9.7e-03	PCI/GDRY	04/06/2016 13:18 EDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	LCS-00734848Y	Amount analyzed:	1.000e+00 SAMP
Client sample ID:	N/A	Preparation batch #:	0013404B
Matrix:	N/A	Assay batch #:	0020877K
Collected:	N/A	Prep procedure:	N/A
Sample type:	N/A	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	N/A	Analyst:	MO
Ash/dry weight:	N/A	QC type:	LCS
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/31/2016 14:07	1000.0	GE15	MO

ANALYTICAL RESULTS

Analyte	Activity	$\pm 2 \sigma$ Uncertainty	MDC	Unit	Reference Date
Bi207	6.77e+03	7.3e+02	1.1e+02	PCI	12/15/2010 11:00 CDT
Bi212 J	7.31e+02	2.2e+02	2.4e+02	PCI	12/15/2010 11:00 CDT
Bi214 J	2.59e+02	3.3e+01	1.8e+01	PCI	12/15/2010 11:00 CDT
Eu155	1.65e+03	1.9e+02	7.2e+01	PCI	12/15/2010 11:00 CDT
Pb212 J	7.34e+02	8.5e+01	3.6e+01	PCI	12/15/2010 11:00 CDT
Pb214 J	2.85e+02	4.0e+01	2.8e+01	PCI	12/15/2010 11:00 CDT
Ra226 J	5.12e+02	2.1e+02	2.4e+02	PCI	12/15/2010 11:00 CDT
Ra228	7.21e+02	8.9e+01	6.4e+01	PCI	12/15/2010 11:00 CDT
Tl208 J	2.37e+02	3.2e+01	1.9e+01	PCI	12/15/2010 11:00 CDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG #1600015

SAMPLE ANALYSIS REPORT

Lab sample #:	RBK-00734849Z	Amount analyzed:	1.000e+00 SAMP
Client sample ID:	N/A	Preparation batch #:	0013404B
Matrix:	N/A	Assay batch #:	0020877K
Collected:	N/A	Prep procedure:	N/A
Sample type:	N/A	Analysis method:	NAREL GAM-01-RA
Dry/wet weight:	N/A	Analyst:	MO
Ash/dry weight:	N/A	QC type:	RBK
Sample description:	N/A		
Comment:	N/A		

COUNTING INFORMATION

Date and time	Duration (min)	Detector ID	Operator
05/31/2016 14:08	1000.0	GE16	MO

ANALYTICAL RESULTS

Analyte		Activity	$\pm 2\sigma$ Uncertainty	MDC	Unit	Reference Date
Bi212	J	6.23e-01	2.1e+01	3.6e+01	PCI	05/24/2016 07:00 CDT
Bi214	J	4.14e+00	3.8e+00	4.9e+00	PCI	05/24/2016 07:00 CDT
Cs137		4.21e-01	1.6e+00	2.7e+00	PCI	05/24/2016 07:00 CDT
K40		1.42e+01	1.2e+01	1.9e+01	PCI	05/24/2016 07:00 CDT
Pb210	J	1.95e+01	5.2e+01	6.6e+01	PCI	05/24/2016 07:00 CDT
Pb212	J	-8.13e-01	4.2e+00	4.8e+00	PCI	05/24/2016 07:00 CDT
Pb214	J	4.62e+00	3.6e+00	5.8e+00	PCI	05/24/2016 07:00 CDT
Ra226	J	1.46e+01	3.4e+01	5.6e+01	PCI	05/24/2016 07:00 CDT
Ra228		1.77e+00	5.4e+00	9.0e+00	PCI	05/24/2016 07:00 CDT
Th234	J	9.84e+00	3.6e+01	6.1e+01	PCI	05/24/2016 07:00 CDT
Tl208	J	1.93e+00	1.6e+00	2.5e+00	PCI	05/24/2016 07:00 CDT

Note: A "J" qualifier indicates a result that may be significantly under or overestimated.

**U.S. ENVIRONMENTAL PROTECTION AGENCY
NATIONAL ANALYTICAL RADIATION ENVIRONMENTAL LABORATORY**

SDG 1600015

PREPARATION BATCH SUMMARY

Preparation batch #: 0013404B
 Analysis method: NAREL GAM-01-RA
 Preparation procedure: N/A

NAREL Sample #	Client Sample ID	Analysis #	QC Type	Yield	$\pm 2 \sigma$ Uncertainty	Analyst
B6.04104Y	C2-SB1-0012-01	00733634F		N/A		MO
B6.04105Z	C2-SB1-4860-01	00733637J		N/A		MO
B6.04106A	C2-SB1-6072-01	00733640D		N/A		MO
B6.04106A	C2-SB1-6072-01	00734847X	DUP	N/A		MO
B6.04107B	C2-SB1-7284-01	00733643G		N/A		MO
B6.04108C	C2-SB1-8496-01	00733646K		N/A		MO
B6.04109D	C2-SB2-0012-01	00733649N		N/A		MO
B6.04110W	C2-SB2-1224-01	00733652H		N/A		MO
B6.04111X	C2-SB2-2436-01	00733655L		N/A		MO
B6.04112Y	C2-SB2-3648-01	00733658P		N/A		MO
B6.04113Z	C2-SB2-7284-01	00733661J		N/A		MO
B6.04114A	C2-SB2-7284-02	00733664M		N/A		MO
B6.04115B	C2-SB2-8496-01	00733667Q		N/A		MO
B6.04116C	C2-SB3-0012-01	00733670K		N/A		MO
B6.04117D	C2-SB3-1224-01	00733673N		N/A		MO
B6.04118E	C2-SB3-4860-01	00733676R		N/A		MO
B6.04119F	C2-SB3-6072-01	00733679V		N/A		MO
B6.04120Y	C2-SB3-7284-01	00733682P		N/A		MO
LCS-00734848Y *		00734848Y	LCS	N/A		MO
RBK-00734849Z *		00734849Z	RBK	N/A		MO

* Samples marked with an asterisk are not in this sample delivery group but were analyzed with it for QC purposes.

QC RESULTS FOR BATCH 0013404B

NAREL Sample #	Analysis #	QC Type	Analyte	%R	RPD	Z	Evaluation
B6.04106A	00734847X	DUP	BI212		10.6	-0.82	PASS-J
B6.04106A	00734847X	DUP	BI214		0.7	-0.08	PASS-J
B6.04106A	00734847X	DUP	CS137		-46.1	-0.42	PASS
B6.04106A	00734847X	DUP	K40		0.5	-0.06	PASS
B6.04106A	00734847X	DUP	PB210		6.2	-0.37	PASS-J
B6.04106A	00734847X	DUP	PB212		0.5	-0.06	PASS-J
B6.04106A	00734847X	DUP	PB214		0.7	0.09	PASS-J
B6.04106A	00734847X	DUP	RA226		3.9	0.34	PASS-J
B6.04106A	00734847X	DUP	RA228		0.9	0.10	PASS
B6.04106A	00734847X	DUP	TH234		22.6	1.02	PASS-J
B6.04106A	00734847X	DUP	TL208		0.4	-0.04	PASS-J
LCS-00734848Y	00734848Y	LCS	BI207	100.6		0.10	PASS
LCS-00734848Y	00734848Y	LCS	EU155	112.7		1.77	PASS
RBK-00734849Z	00734849Z	RBK	BI212				PASS-J
RBK-00734849Z	00734849Z	RBK	BI214				WARN-J
RBK-00734849Z	00734849Z	RBK	CS137				PASS
RBK-00734849Z	00734849Z	RBK	K40				WARN
RBK-00734849Z	00734849Z	RBK	PB210				PASS-J
RBK-00734849Z	00734849Z	RBK	PB212				PASS-J
RBK-00734849Z	00734849Z	RBK	PB214				WARN-J
RBK-00734849Z	00734849Z	RBK	RA226				PASS-J
RBK-00734849Z	00734849Z	RBK	RA228				PASS
RBK-00734849Z	00734849Z	RBK	TH234				PASS-J
RBK-00734849Z	00734849Z	RBK	TL208				WARN-J

Note: Results qualified with -J may be significantly under or over-estimated and are not evaluated for QC purposes.